

## **CARE OF YOUR PERFIN MACHINE**

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A few members have perfin machines (I don't) and may be unaware of how to maintain them. The following hints come from my interest in perforating machines in general and I take no responsibility for them!

Remember the function of a perforating machine is to cut small discs from the paper. The pins are not pointed, the cutting edge is the circumference of the small circle at the pins end. This should be kept sharp by rubbing the pins (still assembled in the head and guide/stripping plate) over a sharpening stone at 90 degrees to the pins. If possible this should be done by pushing the pins down through the die plate and sharpening from below, this gives the maximum support for the pins. Pins of course should be tight in the head. I had hoped to find a supplier for pins; if a member knows of one let us know.

As regards the die plate, the holes should also have a sharp edge to produce a clean perforation. This can be done by filing or machining a thickness of steel from the face of the die plate until the edges of the holes are a sharp 90 degrees. With a small machine this is fairly easy but each time it reduces the thickness and life of the die plate. An alternative for large dies, and producing slightly less wear, is to use a small punch with a cylindrical end and a small projection on it the diameter of the pin. The projection is placed in the pinhole and tapped, so forcing some of the plate material tighter round the projection and pin. You'll have to judge for yourself how heavy the blow should be. The die plate may now not be entirely flat, in effect the surface will be dimpled with small depressions but this should not detract from the operation of the machine, having the flat end of the pin and the edge of the hole in the die-plate sharp and clean is more important.

Some die-plate holes are enlarged on the underside so that the small discs of paper are expelled from the die-plate with the minimum of effort. If you start meeting this enlarged hole from the top then I'm afraid a new die-plate is called for. Sometimes die-plates split, this will lead to ragged perforations on the side of the split. All moving parts should be lubricated but not the pins or die-plate; the paper you wish to perforate should be dry

and crisp, not damp. A machine in a good state of repair should perforate 2, 3 or even more thicknesses of paper. Large multi-dies benefit from having pins of different lengths to reduce the effort needed to perforate but this can make sharpening difficult. In operation the pins should never leave the guide/stripping plate on the up stroke, they should retract just enough to strip the perforated sheet from the pins. Don't perforate with bent pins, they just break, causing more damage and work. Pin plate, guide and stripping plate and die-plate are usually drilled in one process, held together so the holes exactly coincide. Then the pin plate is countersunk or counter bored to take the pin-head, the underside of the die-plate is similar and the die-plate and stripping plate holes opened to whatever the working clearance is.